

KIDS' AUTUMN GAMES 2026

#4



CoBRAIN



Play, Laugh & Learn!

Turn the pages & uncover fun adventures!

Young explorers, get ready to learn through playing!



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Brainico's Autumn Science Adventure

Every autumn, something magical happened in the Valley of Colours. The trees changed from green to gold, orange, and deep red. Leaves floated through the air like tiny dancing flames, while chilly winds rushed through the forest paths. But this autumn was different...

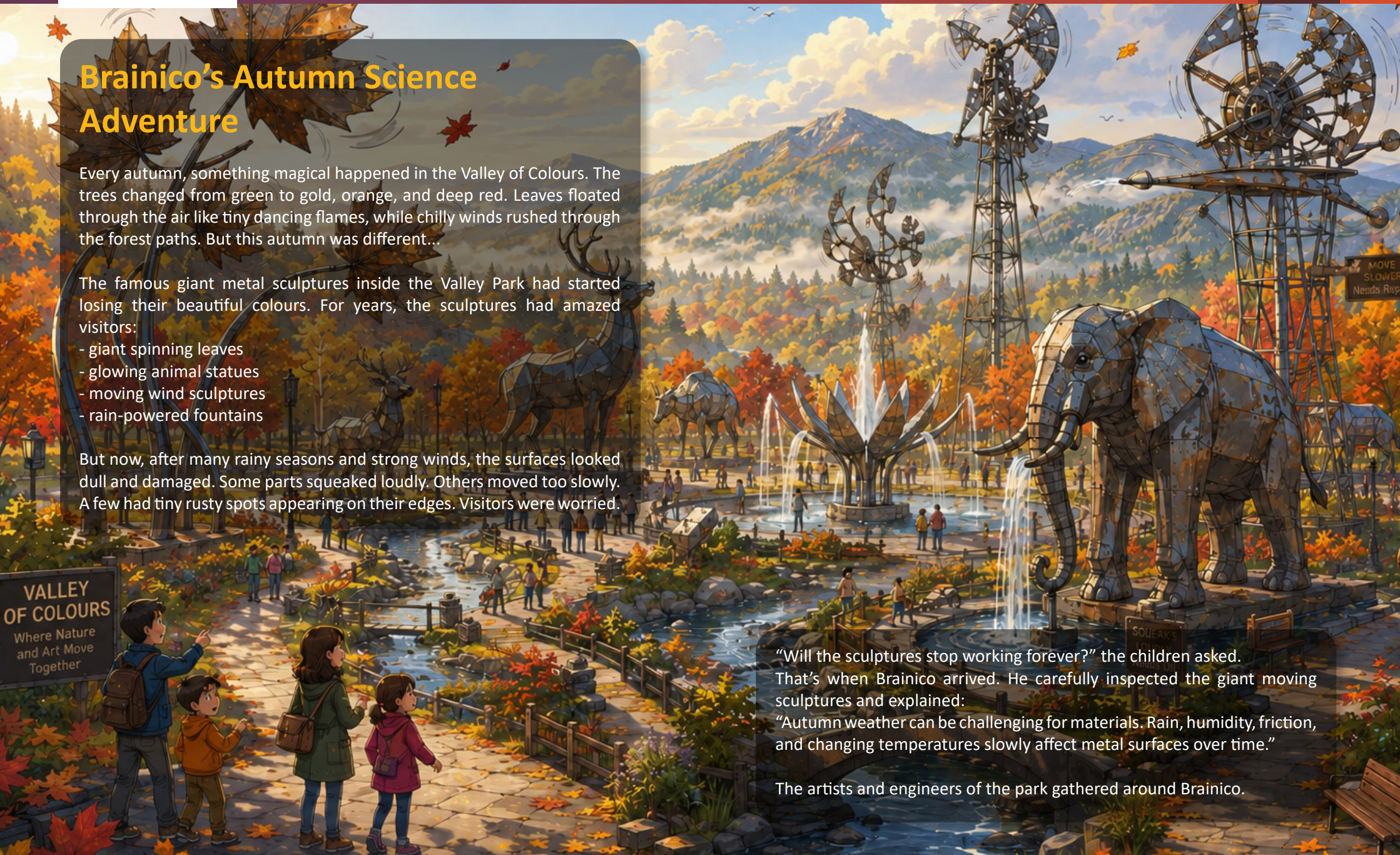
The famous giant metal sculptures inside the Valley Park had started losing their beautiful colours. For years, the sculptures had amazed visitors:

- giant spinning leaves
- glowing animal statues
- moving wind sculptures
- rain-powered fountains

But now, after many rainy seasons and strong winds, the surfaces looked dull and damaged. Some parts squeaked loudly. Others moved too slowly. A few had tiny rusty spots appearing on their edges. Visitors were worried.

"Will the sculptures stop working forever?" the children asked. That's when Brainico arrived. He carefully inspected the giant moving sculptures and explained: "Autumn weather can be challenging for materials. Rain, humidity, friction, and changing temperatures slowly affect metal surfaces over time."

The artists and engineers of the park gathered around Brainico.



“But how can we protect the sculptures without changing their beautiful designs?” they asked.

Brainico smiled. “That’s where science helps creativity.”

Soon, the CoBRAIN team arrived carrying:

- material testing tools
- engineering equipment
- computer models
- AI systems
- surface scanners

The scientists studied:

- weather conditions
- movement of the sculptures
- surface damage
- durability of materials
- and different coating possibilities

Together, the artists and scientists searched for solutions that would help protect the sculptures while keeping them beautiful and functional. Using thermal spray technology, engineers carefully added new protective coatings to the moving metal surfaces. Tiny heated particles created thin protective layers that helped the sculptures resist wear and changing weather conditions.

A few days later...

The sculptures moved smoothly once again. The fountains sparkled. The giant leaves spun beautifully in the wind. That evening, families returned to the Valley Park. Children laughed while colourful lights reflected across the autumn leaves. One little girl looked at Brainico and asked:

“So science can help art too?”

Brainico smiled warmly.

“Of course,” he said. “Science helps protect the things people create, use, and love.”



1

Crossword is a cool game to train your brain. Check the difficulty level and give it a try! Can you solve them all?

Look for the words on these directions: ↗ → ↓ ↘

DIFFICULTY ★☆☆☆☆

L	E	A	F	T	W
A	G	H	Y	I	I
B	R	A	I	N	N
Q	T	R	E	E	D
C	O	A	T	A	V
L	A	D	R	N	S

LEAF | LAB | TREE
COAT | WIND | RAIN

DIFFICULTY ★★☆☆☆

A	U	T	U	M	N	G	W	E	R
S	C	F	E	K	N	K	E	T	C
C	C	A	T	I	N	G	A	K	L
E	F	I	T	F	K	R	T	M	E
E	N	A	E	G	Y	U	H	E	A
N	O	E	W	N	T	S	E	T	V
C	E	F	R	S	C	T	R	A	E
E	T	S	W	G	W	E	G	L	S
T	C	F	K	C	Y	F	B	S	C

AUTUMN
SCIENCE
AI
COATING
WEATHER
HEA
ENERGY
LEAVES
RUST
METALS

DIFFICULTY ★★★★★

T	V	S	Y	E	Y	B	S	Q	I	X	O	N
V	A	L	I	D	A	T	I	O	N	D	R	R
U	W	A	U	R	F	A	M	A	P	L	E	E
H	I	O	N	E	E	I	U	O	N	U	S	S
C	L	P	R	H	U	Y	L	R	I	I	O	I
C	V	Q	N	K	I	K	A	A	N	M	G	S
Z	E	Z	O	D	F	E	T	N	W	O	A	T
Y	S	N	O	U	L	L	I	G	T	D	W	A
O	U	T	N	F	E	H	O	E	S	E	O	N
Q	R	S	E	F	W	C	N	W	A	L	R	C
Y	F	A	T	E	L	E	G	A	N	T	L	E
P	D	Y	E	S	L	N	J	A	C	K	J	X
M	A	N	U	F	A	C	T	U	R	I	N	G

VALIDATION
SIMULATION
RESISTANCE
MANUFACTURING
WORKFLOW
MODEL
MAPLE
CLOUDY
ORANGE
STEEL



DIFFICULTY ★★★★★

EXPERT

A	P	F	C	A	X	B	D	O	X	F	B	D	A	S	S
R	E	S	E	A	R	C	H	B	F	D	G	X	S	H	S
D	E	C	I	S	I	O	N	T	O	O	L	D	C	I	Y
F	B	A	A	F	P	A	M	H	P	C	S	C	P	G	U
P	P	G	X	P	P	C	A	E	X	P	G	S	R	H	E
X	M	I	C	R	O	S	T	R	U	C	T	U	R	E	S
B	X	C	D	O	X	C	E	M	F	O	R	S	B	N	T
A	F	N	G	T	A	F	R	A	X	R	X	T	A	T	X
B	A	A	X	E	B	X	I	L	A	R	A	A	D	R	D
S	G	B	G	C	A	P	A	S	P	O	X	I	X	O	Z
D	P	D	F	T	A	R	L	P	X	S	G	N	C	P	Y
F	D	F	C	I	C	G	S	R	G	I	C	A	L	Y	X
P	C	A	R	O	G	P	C	A	C	O	A	B	P	C	W
A	G	G	B	N	A	G	B	Y	P	N	B	L	L	D	Q
X	F	P	C	A	H	V	A	F	X	C	F	E	B	P	A
Y	M	A	T	U	J	I	Q	L	S	Q	G	X	E	Z	U

RESEARCH
CORROSION
HIGHTENTROPY
SAND
MICROSTRUCTURE
MATERIALS
PROTECTION
DECISIONTOOL
SUSTAINABLE
THERMAL
GEARS
SDSS
HVAF

BRAINER

Found the given words
but not all.

You know how to search
and find solutions.
Keep training your skills
to get your best-self.

BRAINIOUS

Found all the given
words at least in 2
crosswords.

You can find everything
and you're capable
to solve even strange
tasks. Keep expanding
your skills.

BRAINIAC

Found all the given
words easily.

You're an expert in
solving problems
and a great explorer!
You're one step away
to master CoBRAIN's
function.

2

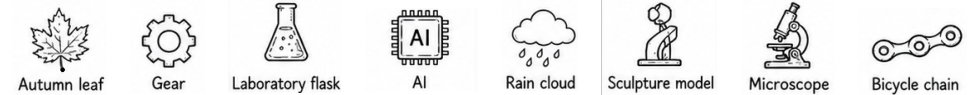
Match the following objects with their coating options, and the words with the meaning that it has more sense.

VISUAL	NAME	WORD	MEANING
	GEAR	COATING	Smart systems that help scientists analyse information
	SCULPTURE	THERMAL SPRAY	A process that creates strong coatings
	WIND	CORROSION	A substance used to build objects
	LEAF	AI	Damage caused by water and air
	LAB	MATERIAL	A protective layer added to surfaces
	RAIN	WEAR	Surface damage caused by movement and friction

ITEM	MATCHES WITH...
MOVING SCULPTURE	Equipment working in difficult conditions
WIND TURBINE	Machine affected by weather and wear
BICYCLE CHAIN	Structure needing corrosion protection
RAINY BRIDGE	Components affected by repeated movement
TRAIN WHEELS	Surface exposed to friction
HARVEST MACHINE	Metal surface needing protection

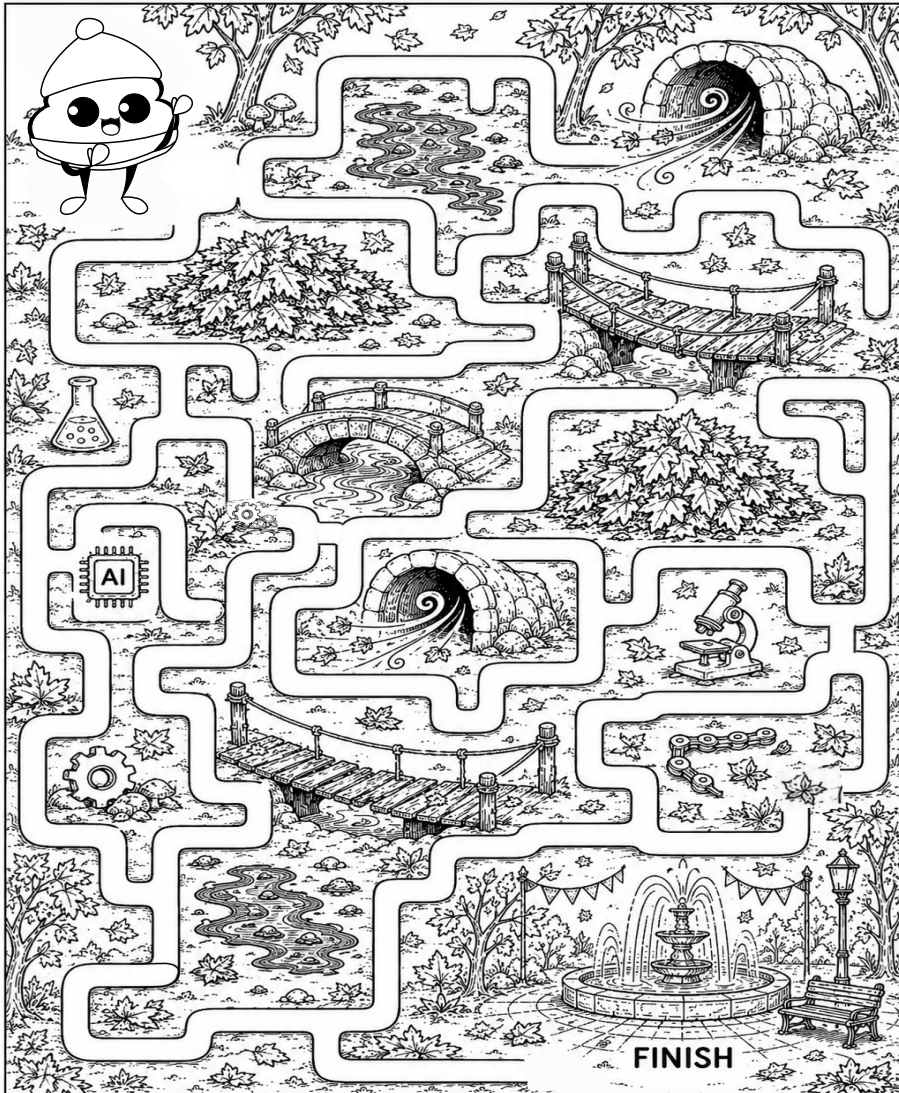
3

Find Brainico's hidden autumn tools!! Kids must find all the hidden objects on the list! Look closely and circle them.



4

Help Brainico travel through the autumn forest to reach the Valley Science Park before sunset! Avoid muddy paths, giant leaf piles, windy tunnels, slippery bridges, hidden dead ends! Find the safest route!



5

Decode the secret words using the letter-number key

(A=1, B=2, C=3, D=4, E=5, F=6, G=7, H=8, I=9, J=10, K=11, L=12, M=13, N=14, O=15, P=16, Q=17, R=18, S=19, T=20, U=21, V=22, W=23, X=24, Y=25, Z=26).

A. 1-21-20-21-13-14 19-3-9-5-14-3-5

B. 16-18-15-20-5-3-20 20-8-5 19-21-18-6-1-3-5-19

C. 3-15-2-18-1-9-14 4-9-19-3-15-22-5-18-25

D. 19-13-1-18-20 13-1-20-5-18-9-1-12-19



6

Sudoku is a fun puzzle game where you use your brain like a little detective!

- 1) Look the grid and try to fill the empty boxes with numbers (1-9).
- 2) Each row, column and box must have all numbers once.
- 3) No double numbers in box, column or row.

	1			4			5	
				9	5	2		1
5		2			1			3
2					5			
		8			6			9
		6	8	2		4		5
1				7			3	
	6						2	7
	9				4		6	

					7		6	1
		1	6	3				
2				9	4		3	
	5						4	
1				4				5
	4			6				8
			5				8	
	6	3		8	1			
					9			

				7	9			5
				1		2		9
		4	8		5			1
2			5	8	1		4	7
		3				9		
		1		9				
1	8					5		
	3	9				7	6	
				5	8			

6					3			4
	7			4				8
		3			5			
		9	3					
	8						4	
				8				
4								
		6				8		
				6	7		2	

7

Time to make a choice! Can you answer the following questions? Choose the right answer for them!

- 1) **Why can autumn weather affect metal surfaces?**
 - A. Because rain and humidity may slowly damage them
 - B. Because leaves are magnetic
 - C. Because wind paints metal orange
 - D. Because autumn is too colourful
- 2) **Why are moving machine parts affected over time?**
 - A. Because wind steals energy
 - B. Because machines get sleepy
 - C. Because friction slowly wears surfaces down
 - D. Because rain changes colours
- 3) **What helps scientists analyze many material options?**
 - A. Tossing leaves into the wind
 - B. AI systems and computer models
 - C. Guessing randomly
 - D. Following squirrels
- 4) **What does a coating do?**
 - A. Creates giant leaves
 - B. Makes sculptures sing
 - C. Changes rain into snow
 - D. Protects surfaces from wear and corrosion
- 5) **What kinds of things can coatings protect?**
 - A. Bridges, machines, trains, turbines, and sculptures
 - B. Only pumpkins
 - C. Only bicycles
 - D. Only trees
- 6) **Why do engineers study materials carefully?**
 - A. To help machines last longer and work better
 - B. To make leaves fall slower
 - C. To change the weather
 - D. To create giant storms
- 7) **What is thermal spray used for?**
 - A. Moving clouds
 - B. Drying autumn leaves
 - C. Creating protective coatings
 - D. Heating forests
- 8) **What does CoBRAIN combine?**
 - A. Trees and rivers
 - B. Clouds and lightning
 - C. Rain and snow
 - D. Science, experiments, AI, and engineering

8

Brainico challenges YOU to become an inventor!
Imagine your city needs a brand-new machine or structure for autumn weather. What would YOU create?

Choose one or more of the next ideas, or invent your own!
Get creative draw and colour your invention!

IDEAS

1) The Anti-Slip Autumn Bicycle

A super bicycle for rainy roads & slippery leaves.

2) The Rain-Proof Playground

A smart playground with metal slides & swings that stay strong during rainy

weather.

3) The Super Silent Train

A train that travels quietly through windy autumn forests.

4) The Smart Moving Bridge

A giant bridge that opens for ships.



9

I look kinda pale... can you give me some colour? Take your time, paint and add something that reminds of autumn or winter.



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ANSWERS



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